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EXAMINER

TIEU, BINH KIEN

ART UNIT	PAPER NUMBER
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2614

MAIL DATE	DELIVERY MODE
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08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/602,749

Applicant(s)

EAR, CHENGLIM

Examiner

/BINH K. TIEU/

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2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/24/03 & 11/15/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 14-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Lakhani et al. (Pub. No.: US 2004/0176067).

Regarding claim 14, Lakhani et al. ("Lakhani") teaches billing extension module (i.e., Short Message Service (SMS) Rating and Billing 40, as shown in figure 1) coupled to a carrier's application (i.e., coupled to SMSCs) to support billing operations, the billing extension module operable to perform billing services at the beginning of a billing event or at the end of a billing event or both (i.e., before message delivery, SMS Rating and Billing 40 make a request to an Open Charging (OC) middleware platform and gateway system 50 to ensure prepaid subscriber s have sufficient funds in their prepaid account at the beginning of a billing event, see paragraph [0020]), wherein the billing services include the services selected from the group consisting of:

- logging charge detail records (i.e., logging all receipts, see paragraphs [0033]-[0036]);
- determining the cost of a billable operation (i.e., setting an amount to be charged for a given message type, paragraph [0021]);
- checking for funds in an account (i.e., sufficient or insufficient);

reserving funds for an account;
debiting funds from an account; and
crediting funds to an account (also see re-rate or re-credit in paragraph [0033]-[0036]).

Regarding claim 15, Lakhani teaches A system for providing mobile messaging billing services comprising:

a mobile application server (i.e., Short Message Service Centers (SMSCs) 30));
a billing extension module application (i.e., Short Message Service (SMS) Rating and Billing 40, as shown in figure 1) coupled to the mobile application server;
one or more remote billing servers (i.e., Open Charging (OC) middleware platform and gateway system 50); and

a real-time client billing library operable to provide communications between the billing extension module and the remote billing server (see paragraphs [0026]-[0029]).

Regarding claim 16, note subscriber rate plans, tariffs, etc. from the SMS Rating and Billing 40 and prepaid or post paid accounts from OC platform 50 in paragraphs [0020]-[0021].

Regarding claim 17, the SMS Rating and Billing 40 is considered as a remote rating engine.

Regarding claim 18, the SMSCs 30 is considered as local rating engine.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-13, 19-26 and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakhani et al. (Pub. No.: US 2004/0176067) in view of Bantz et al. (Pub. No.: US 2003/0017819).

Regarding claims 1 and 19, Lakhani teaches Short Message Service (SMS) Rating and Billing 40, as shown in figure 1. The SMS Rating and Billing 40 is able to rate in real-time messages before they are submitted to telecommunication's network operator's Mobile Switching Centers and Short Message Service Centers (SMSCs) for delivery. This enables carriers and/or telecommunications network operator's to ensure their prepaid subscribers have sufficient funds for sending messages. Lakhani further teaches that SMS Rating and Billing 40 rates the incoming messages (i.e., billable messages, etc.) using its internalized Rating Rules (RR). The SMS Rating and Billing also determines the tariff for a message depending on the rate plans configured for the subscriber. The RR then sets an amount to be charged for the given message type. Lakhani further teaches that the SMS Rating and Billing 40 makes a request to an Open Charging (OC) middleware platform and gateway system 50 to ensure prepaid subscriber s have sufficient funds in their prepaid account before the Mobile origination (MO) short message (SM) gets sent to the relevant SMSC. If a prepaid account associated with a prepaid subscriber

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has insufficient balance, the MO message is rejected and in turn not delivered to the SMSC (see paragraphs [0019]-[0021]). The messages are considered billable or non-billable based on rules matching. Rules matching are set on a service provider ID that is matched to one of incoming messages (see paragraph [0022]-[0023]).

It should be noticed that Lakhani fails to clearly teach the features of notifying an external billing module to start and end a billing event. However, Bantz et al. ("Bantz") teaches such features in paragraph [0024] for a purpose of billing a client when a service just completely provided.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the features of notifying an external billing module to start and end a billing event, as taught by Bantz, into view of Lakhani in order to remotely deduct from the user prepaid account for a cost of message delivery.

Regarding claim 2, Lakhani further teaches limitations of the claim in paragraph [0020]. It should be noted that if the fund is not sufficient, OC responds to the fund request from the SMS Rating and Billing 40 so that the message is not authorized to be sent. The message is rejected.

Regarding claims 3-4 and 20, Lakhani further teaches limitations of the claim in paragraph [0025]. It should be understood that the two service providers each provides its own billing rate to the SMS Rating and Billing 40.

Regarding claims 5-13 and 23-24, Lakhani further teaches the SMS Rating and Billing 40 operable as a billing module and "...setting or reserving an amount to be charged for a given message type...", see paragraphs [0021] and [0033]-[0036].

Regarding claim 21, Lakhani further teaches another embodiment that supporting the capability to notify subscribers of insufficient balances via SMS notification message (see paragraph [0031]). The SMS notification message may inherently disclose reason(s) why the account has insufficient balances such as a cost of current message delivery and a remaining amount a (current balance of the account) which is less the cost of the message delivery.

Regarding claim 22, the feature of presenting or displaying a cost or charge to a user or subscriber for approval is well-known to those skilled in the art. However, such is notoriously well-known in the art and the Examiner takes official notice of such. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the presenting or displaying a cost or charge to a user or subscriber for approval into view of Lakhani and Bantz in order to improve billing method of provisioning services to users.

Regarding claim 25, the limitations of the claim are rejected with reasons set forth in the rejection of claim 1 above. It is further noticed Bantz also teaches the features of sending the request to the billing server; and receiving responses to the requests from the billing server (see paragraph [0046]).

Regarding claims 26, and 28-32, the limitations of the claims are rejected with the same reasons as set forth in the rejections of claims 2-13 above.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lakhani et al. (Pub. No.: US 2004/0176067) in view of Bantz et al. (Pub. No.: US 2003/0017819) as applied to claim 25 above, and further in view of Nix et al. (Pub. No.: US 2003/0110044).

Regarding claim 27, Lakhani and Bantz, in combination, fails to clearly teach the features of the requests for the billing server are SOAP-formatted requests that can be sent over HTTP.

However, Nix et al. ("Nix") teaches such features in paragraph [0063] for a purpose of providing communications protocol compatible to the existing network.

Therefore, it would have been obvious to one of ordinary skill in the art the time the invention was made to incorporate the use of the features of the requests for the billing server are SOAP-formatted requests that can be sent over HTTP, as taught by Nix, into view of Lakhani and Bantz in order to provide the communications protocol compatible to the existing network.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Although the Lakhani et al. (Pub. No.: US 2004/0252657) and Carrigan et al. (Pub. No.: US 2005/0117602) are not applied into this Office Action, they are also called to Applicants attention. They may be used in future Office Action(s). Both these references are also concerned with the subject matters in the claimed invention as recited in the above rejected claims 1-32.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN**

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/BINH K. TIEU/

Primary Examiner
Technology Division 2614

Date: August 2007